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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/702,414	11/06/2003	Phuong V. Luu	2376 (GP-01-24)	9788
40256	7590	08/18/2006	EXAMINER	
FERRELLS, PLLC			HUG, ERIC J	
P. O. BOX 312			ART UNIT	
CLIFTON, VA 20124-1706			PAPER NUMBER	

1731  
DATE MAILED: 08/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/702,414	<b>Applicant(s)</b> LUU ET AL.	
	<b>Examiner</b> Eric Hug	<b>Art Unit</b> 1731	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Amendment***

The following is in response to the amendment filed on June 16, 2006.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over McConnell et al (US 6,758,943). McConnell qualifies as prior art under 35 U.S.C. 102(e).

McConnell discloses a tissue product that has a relatively long absorbency rate to delay liquid from saturating the tissue and pass from one side of the tissue to the other. The tissue product also has absorbency capacity to absorb liquid. The tissue product includes a "repellant agent" which resists absorption of a liquid. The repellant agent repel liquids by filling interstitial voids in the fibrous structure of the tissue and/or by coating individual fibers thereof preventing liquids from being absorbed by and passing through the fibers to the interior of the fibrous structure. The contact angle at the fiber surface is about 90 degrees or greater. The repellant agent may include waxes. In McConnell, the term "wax" refers to aqueous emulsions of small particles held in suspension by emulsifying agents, wherein the particles include materials such as paraffin waxes, microcrystalline wax, or other waxes. The tissue products are made of cellulosic fibers. A tissue product may have a single ply structure as illustrated in Figures 1-2, or may have a two-ply structure as illustrated in Figure 3.

A repellant agent and other papermaking additives are added to an aqueous suspension of papermaking fibers prior to forming a web. The amount of repellant agent used is between about

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1-20 pounds per ton of fiber. The repellant agent is uniformly dispersed throughout the aqueous suspension of papermaking fibers. The aqueous suspension of papermaking fibers are then deposited onto a forming fabric to form a web. The web is finally dried to form a tissue product. The repellant agent is dispersed uniformly, forming a liquid or fluid strikethrough barrier throughout the dried web.

The tissue is dried by any of several known means, including drying on a steam heated Yankee dryer (120) or high temperature air hood (126) are used to further dry the web. Temperatures as high as 200 degrees F may be used and aid in the curing of the repellant agent. See column 8, lines 54-58. For a wax, these temperatures would be obvious to one skilled in the art as exceeding the melting temperature of a wax. The high temperatures would fuse and dispose the wax on the surface of the web accordingly.

The basis weight of a tissue product may vary between about 4-60 grams/m<sup>2</sup> which is equivalently about 2.5-37 lb/3000 ft<sup>2</sup> (conversion: 1 g/m<sup>2</sup> = 0.615 lb/3000 ft<sup>2</sup>). The absorbency rate desirably is between about 10 seconds to about 430 seconds. The absorbency capacity is desirably between about 7 gm liquid/gm tissue to about 13 gms/gms. These test methods are described in depth in column 3, line 57 to column 4, line 31. The "strikethrough resistance" is also discussed, which refers to a characteristic of a tissue product which slows or impedes the movement of liquid from one surface of the tissue to the opposite surface.

McConnell discloses the claimed dispersion and components to provide a hydrophobic surface on a underlying cellulosic substrate, and also discloses the same method of applying the dispersion including the step of heating above the melting temperature of the dispersion. McConnell also discloses single ply and multiple ply tissue papers having at least the claimed

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basis weights. McConnell also discloses the claimed delay times for moisture penetration and contact angles for water. McConnell does not disclose a sneeze simulation test, however, such a test is considered to be analogous to the strikethrough resistance. Although results of such tests are not disclosed, the properties that the claimed sneeze simulation test measures have been recognized by McConnell. Applicant has claimed the process differently from that of McConnell only in terms of such testing results, such process being otherwise indistinguishable from that of McConnell. The claims are therefore unpatentable.

***Response to Arguments***

Applicant's arguments filed June 16, 2006 have been fully considered.

The rejection of claims 1-6, 9, and 10 set forth previously under 35 U.S.C. 103(a) over Krzysik et al (US 6,287,581) has been withdrawn. It is recognized that the wax compositions of Krzysik are not aqueous dispersions, and also that the compositions of Krzysik allow for water penetration rather than resisting it.

The rejection of claims 1-8 and 11-20 set forth previously under 35 U.S.C. 103(a) over Eichhorn (EP 1 029 977) has been withdrawn. It is recognized that the wax compositions of Krzysik are not aqueous dispersions, but rather oil-based solids or highly viscous oil-based liquids containing some water which must be melted in order to be distributed onto a sheet.

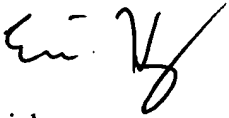
A new grounds of rejection is set forth above.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Hug whose telephone number is 571 272-1192.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
jeh